



TIMKEN

Timken® Bearings Featuring MicroPoly® Solid Lubricant

MicroPoly® solid lubricant is a mixture of polymers, oils, and other additives that can be customized for your specific bearing lubrication requirements.

The porous polymer structure fills the air space between the rolling elements and race, keeping foreign objects out while retaining oil in the pores. The oil lubricates the bearing surfaces by capillary action. Additional oil is supplied to the bearing from the reserves in the pores. There is no need for maintenance or additional lubrication during the life of a MicroPoly lubricant-filled Timken® bearing.

MicroPoly Lubricants:

- Cut maintenance costs and downtime
- Keep contaminants out of bearing due to solid structure
- Eliminate bearing maintenance after installation
- Prolong bearing life
- Improve housekeeping by eliminating the dripping of grease and oil
- Are available in several formulations, including H-1 and H-2 formulas which meet applicable USDA and FDA standards.



MicroPoly®

TYPICAL INDUSTRIES:

- PRIMARY METALS
- MINING
- POWER GENERATION
- AUTOMOTIVE MRO

Speed Chart

$$\text{Maximum RPM} = \frac{\text{Ndm Value}}{1/2(\text{Bore} + \text{O.D.}) \text{ in mm}}$$

<i>Bearing Type</i>	<i>Ndm value</i>
single row deep groove ball, metal cage	300,000
single row deep groove ball, plastic cage	40,000
Double row deep groove ball	150,000
Angular contact ball	150,000
Self-aligning ball	150,000
Cylindrical roller	150,000
Spherical roller	85,000
Tapered roller and roller thrust	45,000

These values are based upon normal ambient operating temperatures. As operating temperatures increase, the maximum operating speed may have to be decreased to keep the bearing below 200 degrees Fahrenheit, which is the maximum desired continuous operating temperature.